

Application No. 10/010,190
Amendment "D" dated April 14, 2006
Reply to Office Action mailed February 15, 2006

AMENDMENTS TO THE CLAIMS

The listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of customizing arrangement of content displayed on a display device of a mobile computing device, the method comprising:

an act of creating a template file at a network computing device, which represents a layout for displaying content at the mobile computing device that is updated automatically and without user intervention, by performing the acts of:

generating static content and layout information corresponding to the static content;

generating one or more references to dynamic content and layout information corresponding to the one or more references to dynamic content, the dynamic content changing over time; and

including the static content, the one or more references to the dynamic content, as well as corresponding layout information in the template file;

an act of generating computer-executable instructions for substituting the dynamic content, at the mobile computing device, the substituted dynamic content being stored separate from the template file and substituted for the one or more references to the dynamic content included in the template file;

an act of transferring the template file and the computer-executable instructions to the mobile computing device in order to customize arrangement of the dynamic content at the mobile computing device wherein the computer-executable instructions are executed at the mobile computing device to facilitate merging updated displayable dynamic content at the mobile computing device with the layout information corresponding to the one or more references to dynamic content, wherein the template file, including the layout information is stored at the mobile computing device; and

transferring new layout information to the mobile computing device, the new layout information replacing existing layout information corresponding to the stored template file and without replacing the stored template file.

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2. (Original) The method as recited in claim 1, wherein generating static content and layout information corresponding to the static content comprises the following:

an act of generating computer-executable instructions in the form of markup language instructions.

3. (Original) The method as recited in claim 2, wherein generating computer-executable instructions in the form of markup language instructions comprises the following:

an act of generating computer-executable instructions in the form of HTML instructions.

4. (Original) The method as recited in claim 1, wherein generating static content and layout information corresponding to the static content comprises the following:

an act of generating layout information for positioning static content on the display device.

5. (Original) The method as recited in claim 1, wherein generating references to dynamic content and layout information corresponding to the references to dynamic content comprises the following:

an act of generating customized extensions to a computer language, the customized extensions referencing dynamic content.

6. (Original) The method as recited in claim 5, wherein generating customized extensions to a computer language comprises the following:

an act of generating customized extensions to a markup language, the extensions referencing dynamic content.

7. (Original) The method as recited in claim 6, wherein generating customized extensions to a markup language comprises the following:

an act of generating customized macro extensions to a markup language, the customized macro extensions referencing dynamic content.

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8. (Original) The method as recited in claim 7, wherein generating customized macro extensions to a markup language comprises the following:

an act of generating customized macro extensions to HTML, the customized macro extensions referencing dynamic content.

9. (Original) The method as recited in claim 8, wherein generating customized macro extensions to HTML comprises the following:

an act of generating customized macro extensions that may cause the display of dynamic content at the display device.

10. (Original) The method as recited in claim 5, wherein generating customized extensions to a computer language comprises the following:

an act of generating customized extensions to a computer language that may, automatically and without user intervention, cause the display of dynamic content at the display device.

11. (Original) The method as recited in claim 5, wherein generating customized extensions to a computer language comprises the following:

an act of generating customized extensions to a script language, the extensions referencing dynamic content.

12. (Original) The method as recited in claim 11, wherein generating customized extensions to a script language, the extensions referencing dynamic content comprises the following:

an act of generating customized extensions to java script, the extensions referencing dynamic content.

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13. (Original) The method as recited in claim 1, wherein generating references to dynamic content and layout information corresponding to the references to dynamic content comprises the following:

an act of generating layout information for positioning dynamic content on the display device.

14. (Original) The method as recited in claim 1, wherein generating references to dynamic content and layout information corresponding to the references to dynamic content comprises the following:

an act of generating layout information for ordering dynamic content on the display device.

15. (Original) The method as recited in claim 1, wherein including the static content, the references to the dynamic content, as well as corresponding layout information in a template file comprises the following:

an act of including the static content, the references to dynamic content, as well as corresponding layout information in a template file that is capable of including content of a plurality of different formats.

16. (Original) The method as recited in claim 15, wherein including the static content, the references to dynamic content, as well as corresponding layout information in a template file that is capable of including content of a plurality of different formats comprises the following:

an act of including the static content, the references to dynamic content, as well as corresponding layout information in a MIME file.

17. (Previously Presented) The method as recited in claim 1, wherein generating computer-executable instructions comprises the following:

an act of generating computer-executable instructions in a markup language for substituting, at the mobile computing device, the dynamic content for the one or more references to the dynamic content.

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18. (Previously Presented) The method as recited in claim 17, wherein generating computer-executable instructions in a markup language comprises:

an act of generating computer-executable instructions in HTML.

19. (Previously Presented) The method as recited in claim 18, wherein generating computer-executable instructions in HTML comprises the following:

an act of generating computer-executable instructions that include customized macro extensions to HTML.

20. (Original) The method as recited in claim 1, wherein transferring the template file and the computer-executable instructions to the mobile device comprises the following:

an act of transferring a template file that includes content encoded in a MIME format to the mobile device.

21. (Original) The method as recited in claim 20, wherein transferring a template file that includes content encoded in a MIME format to the mobile device comprises the following:

an act of transferring a template file that includes content encoded in a MIME format to the mobile device using WAP.

22. (Previously Presented) The method as recited in claim 21, wherein transferring a template file that includes content encoded in a MIME format to the mobile device using WAP comprises the following:

an act of transferring a template file, that includes content encoded in a MIME format and that is associated with a specific application id, to the mobile device using WAP.

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23. (Original) The method as recited in claim 22, wherein transferring a template file, that includes content encoded in a MIME format and that is associated with a specific application id, to the mobile device using WAP comprises the following:

an act of transferring a template file, that includes content encoded in a MIME format and that is associated with a specific application id that identifies the template file as including content encoded in a MIME format, to the mobile device using WAP.

24. (Original) The method as recited in claim 1, wherein transferring the template file and the computer-executable instructions to the mobile device comprises the following:

an act of transferring a template file and computer-executable instructions that include HTML content.

25. (Original) The method as recited in claim 1, wherein transferring the template file and the computer-executable instructions to the mobile device comprises the following:

an act of transferring the template file and the computer-executable instructions via a transport protocol.

26. (Original) The method as recited in claim 25, wherein transferring the template file and the computer-executable instructions via a transport protocol comprises the following:

an act of transferring the template file and the computer-executable instructions via HyperText Transport Protocol.

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27. (Currently Amended) A method for displaying a customized arrangement of content at a mobile computing device, the method comprising:

an act of receiving, from a network computing device, a template file that includes static content, one or more references to dynamic content, as well as corresponding layout information for the static and dynamic content;

storing the template file and the layout information;

an act of receiving, from the network computing device, computer-executable instructions for substituting the dynamic content for the one or more references to the dynamic content included in the template file;

an act of receiving a notification that dynamic content referenced by at least one of the one or more references to the dynamic content has changed;

an act of executing computer-executable instructions to substitute the changed dynamic content at the mobile computing device, ~~to substitute~~ the changed dynamic content being stored separate from the template file and substituted for the at least one of the one or more references to the dynamic content, based on the notification that the dynamic content referenced by the at least one of the one or more references to the dynamic content has changed, wherein the computer-executable instructions are executed at the mobile computing device to facilitate merging updated displayable dynamic content at the mobile computing device with the layout information corresponding to the one or more references to dynamic content; and

receiving new layout information corresponding to the stored template file, the new layout information replacing the stored layout information corresponding to the stored template file and without replacing the stored template file.

28. (Previously Presented) The method as recited in claim 27, further comprising the following:

an act of storing the template file in system memory associated with the mobile computing device.

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29. (Previously Presented) The method as recited in claim 27, wherein receiving a notification that dynamic content referenced by at least one of the one or more references to dynamic content has changed comprises the following:

an act of receiving a notification that was pushed to the mobile device using a wireless protocol.

30. (Original) The method as recited in claim 29, wherein receiving a notification that was pushed to the mobile device using a wireless protocol comprises:

an act of receiving a notification that was pushed to the mobile device using WAP.

31. (Original) The method as recited in claim 30, wherein receiving a notification that was pushed to the mobile device using WAP comprises:

an act of receiving a service indication element that was pushed to the mobile device using WAP.

32. (Original) The method as recited in claim 31, wherein receiving a service indication element that was pushed to the mobile device using WAP comprises the following:

an act of receiving a service indication element that includes a URI.

33. (Original) The method as recited in claim 31, wherein receiving a service indication element that was pushed to the mobile device using WAP comprises the following:

an act of receiving a service indication element, which includes a system indication ID that identifies a reference to dynamic content included in a template file.

34. (Previously Presented) The method as recited in claim 31, wherein receiving a service indication element that was pushed to the mobile device using WAP comprises the following:

an act of receiving a service indication element that includes dynamic content that has changed.

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35. (Previously Presented) The method as recited in claim 27, wherein receiving a notification that dynamic content referenced by at least one of the one or more references to dynamic content has changed comprises the following:

an act of receiving a notification via a transport protocol that dynamic content referenced by at least one of the one or more references to dynamic content has changed.

36. (Previously Presented) The method as recited in claim 27, wherein receiving a notification that dynamic content referenced by at least one of the one or more references to dynamic content has changed comprises the following:

an act of receiving a notification, which includes a plurality of dynamic content items associated with a structured data content type, that dynamic content referenced by at least one of the one or more references to dynamic content has changed.

37. (Previously Presented) The method as recited in claim 27, wherein receiving a notification that dynamic content referenced by at least one of the one or more references to dynamic content has changed comprises the following:

an act of storing a notification that was pushed to the mobile device using a wireless protocol.

38. (Previously Presented) The method as recited in claim 27, wherein an act of executing computer-executable instructions comprises the following:

an act of executing markup language instructions.

39. (Previously Presented) The method as recited in claim 38, wherein an act of executing markup language instructions comprises the following:

an act of executing HTML instructions.

40. (Canceled).

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41. (Currently Amended) A computer program product comprising one or more computer readable media with computer executable instructions for implementing a method of customizing arrangement of content displayed on a display device of a mobile computing device, the method comprising:

creating a template file at a network computing device, which represents a layout for displaying content at the mobile computing device that is updated automatically and without user intervention, by:

generating static content and layout information corresponding to the static content;

generating one or more references to dynamic content and layout information corresponding to the one or more references to dynamic content, the dynamic content changing over time even if corresponding layout information remains the same;

including the static content, the one or more references to the dynamic content, as well as corresponding layout information in the template file;

generating computer-executable instructions for substituting the dynamic content; at the mobile computing device, the substituted dynamic content being stored separate from the template file and substituted for the one or more references to the dynamic content included in the template file; wherein the computer-executable instructions are executed at the mobile computing device to facilitate merging updated displayable dynamic content at the mobile computing device with the layout information corresponding to the one or more references to dynamic content.

transferring the template file and the computer-executable instructions to the mobile computing device in order to customize arrangement of the dynamic content at the mobile computer device, wherein the template file, including the layout information is stored at the mobile computing device; and

transferring new layout information to the mobile computing device, the new layout information replacing existing layout information corresponding to the stored template file and without replacing the stored template file.

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42. (Original) The computer program product as recited claim 41, wherein the computer-readable medium is a physical storage media.

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43. (Currently Amended) A computer program product comprising one or more computer readable media with computer executable instructions for implementing a method of displaying a customized arrangement of content at a mobile computing device, the method comprising:

receiving, from a network computing device, a template file that includes static content, one or more references to dynamic content, as well as corresponding layout information for the static and dynamic content;

receiving, from the network computing device, computer-executable instructions for substituting the dynamic content for the one or more references to the dynamic content included in the template file;

receiving a notification that dynamic content referenced by at least one of the one or more references to the dynamic content has changed;

executing computer-executable instructions to substitute the changed dynamic content; at the mobile computing device, ~~to substitute the changed dynamic content being stored separate from the template file and substituted~~ for the at least one of the one or more references to the dynamic content, based on the notification that the dynamic content referenced by the at least one of the one or more references to the dynamic content has changed, wherein the computer-executable instructions are executed at the mobile computing device to facilitate merging updated displayable dynamic content at the mobile computing device with the layout information corresponding to the one or more references to dynamic content; and

receiving new layout information corresponding to the stored template file, the new layout information replacing the stored layout information corresponding to the stored template file and without replacing the stored template file.

44. (Original) The computer program product as recited claim 43, wherein the computer-readable medium is memory included in the mobile computing device.

45. (Previously Presented) A method as recited in claim 1, wherein the method further includes generating at least some dynamic content at the mobile computing device that replaces one or more references provided in the template file.

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46. (Previously Presented) A method as recited in claim 1, wherein the method further includes notifying the mobile computing device of changes to the layout information and other dynamic content.

47. (Previously Presented) A method as recited in claim 46, wherein notifying includes providing an audio notification.

48. (Previously Presented) A method as recited in claim 27, wherein the method further includes generating at least some dynamic content at the mobile computing device that replaces one or more references provided in the template file.

49. (Previously Presented) A method as recited in claim 27, wherein the notification includes an audio notification.